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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,788	12/30/2003	Kil-Ho Jeong	51876P568	1090

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EXAMINER

VUONG, QUOCHIEU B

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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03/06/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATENT@PARK-LAW.COM

Office Action Summary	Application No. 10/749,788	Applicant(s) JEONG ET AL.	
	Examiner Quochien B. Vuong	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/08/2008 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-6, 8 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Garner et al. (US 4,792,986).

Regarding claim 1, Garner et al. disclose an apparatus (figures 1, 2, and 7) for automatically detecting the presence of an external device in an earphone jack port of a

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mobile terminal, the apparatus comprising: a connection unit (figure 2, jack 30) to electrically connect connecting an earphone/microphone set or an external device to the mobile terminal, and to send level information according to whether the earphone/microphone set or the external device is connected to the mobile terminal, wherein the level information has a first voltage level if the earphone/microphone set is connected to the mobile terminal and a second voltage level if the external device is connected to the mobile terminal (column 6, lines 17-37; and column 3, lines 24-32); a sensor (UDC sense pin) to determine whether the earphone/microphone set or the external device is electrically connected to the connection unit according to the voltage level of the level information and to generate an indication signal containing a determination result; a main processor (100) to generate a control signal to control the earphone/microphone set or the external device according to the indication signal; and an external device controller to control controlling the external device, if the external device is connected to the mobile terminal, by receiving the control signal from the main processor, wherein the external device controller enables the connected external device automatically, if the external device is connected to the connection unit (column 6, line 17—column 7, line 36; and column 8, line 24 - column 10, line 2).

Regarding claim 3, Garner et al. disclose the apparatus as recited in claim 1, wherein the main processor generates the control signal to enable the external device controller if the indication signal represents that the external device is connected to the connection unit, and generates a shot signal and a charge control signal (column 6, line 17 – column 7, line 36).

Regarding claim 4, Garner et al. disclose the apparatus as recited in claim 3, wherein the external device controller controls the external device according to the shot signal and the charge control signal from the main processor.

Regarding claim 7, Garner et al. disclose the apparatus as recited in claim 1, wherein the connection unit includes: a microphone/charge-control signal end to provide a connection to either a microphone end of a earphone/microphone set plug or a charge-control signal end of an external device plug; a speaker/shot end to provide a connection to either a speaker end of the earphone/microphone set plug or a shot end of the external device plug; a switch end to identify whether following, the earphone/microphone set or the external device is electrically connected to the connection unit and a ground end to provide a connection to either a t-he ground end of the earphone/microphone set plug or a ground end of the external device plug (column 6, line 17 – column 7, line 36).

Regarding claim 8, Garner et al. (figures 1, 2, and 7) disclose a method for automatically detecting the presence of an external device in an earphone jack port of a mobile terminal, the method comprising the steps of: a) obtaining level information from a connection unit, wherein the level information has a first voltage level if a earphone/microphone set is connected to the mobile terminal and a second voltage level if the external device is connected to the mobile terminal (column 6, lines 17-30; and column 3, lines 24-32); b) determining whether the earphone/microphone set or the external device what is electrically connected to the connection unit according to the voltage level of the level information (column 6, lines 30-36); c) enabling an external

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device control unit if the external device is electrically connected to the connection unit and d) enabling an earphone/microphone set control unit if the earphone/microphone set is electrically connected to the connection unit (column 6, line 37 – column 7, line 36; and column 8, line 24 – column 10, line 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garner et al. in view of Aotake et al. (US 6,819,942).

Regarding claim 2, Garner et al. disclose the apparatus of claim 1 above. Garner et al. further disclose an earphone/microphone set controller to control an

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earphone/microphone set to pass a voice signal to a voice input/output unit in the mobile terminal according to the voltage level of the level information (column 6, line 30 – column 7, line 36; and column 9, lines 30-55). Garner et al. do not explicitly disclose a call controller to generate a call signal indicating whether the mobile terminal is used for originating a call; and an earphone/microphone set controller to control an earphone/microphone set to pass a voice signal to a voice input/output unit in the mobile terminal according to the call signal. However, since Garner et al. disclose a mobile terminal (portable radio communications device in figure 1; column 4, lines 40-62), it would be obvious for the mobile terminal of Garner et al. to include a call controller for generating a call signal. In addition, Aotake et al. disclose a call controller to generate a call signal indicating whether the mobile terminal is used for originating a call; and an earphone/microphone set controller to control an earphone/microphone set to pass a voice signal to a voice input/output unit in the mobile terminal according to the call signal (column 5, lines 44-52; and column 6, line 34 – column 7, line 17). Therefore, it would have been obvious for one having ordinary skill in the art to adapt the teaching of Aotake et al. to the apparatus of Garner et al. in order to control the audio path according to the call signal for providing communication with other device.

Regarding claim 5, Garner et al. and Aotake et al. disclose the apparatus of claim 2 above. In addition, Garner et al. further disclose wherein the main processor generates the control signal to enable the earphone/microphone set controller if the indication signal represents that the earphone/microphone set is connected to the connection unit (column 6, line 37 – column 7, line 36).

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Regarding claims 9 and 10, Garner et al. disclose the apparatus and method of claims 1 and 8 above, respectively. Garner et al. do not specifically disclose wherein the external device is a strobe, wherein the external device controller enables the connected strobe if the strobe is connected to the connection unit and a digital camera is used. However, Aotake et al. disclose a mobile communication terminal connected to an external device (figures 1 and 2), wherein the external device controller enables the connected strobe if the strobe is connected to the connection unit and a digital camera is used (column 4, lines 40-67; and column 7, lines 40-67). Therefore, it would have been obvious for one having ordinary skill in the art to adapt the teaching of Aotake et al. to the apparatus and method of Garner et al. so that the apparatus and method of Garner et al. can connect to the camera for taking picture.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garner et al.

Regarding claims 11 and 12, Garner et al. disclose the apparatus and method of claims 1 and 8 above, respectively. Garner et al. do not specifically disclose wherein the first voltage level is 2.7 volts to 3.0 volts, and the second voltage level is 0.5 volts. However, the voltage levels are just the reference voltages can be obviously set at any levels. Therefore, it would have been obvious for one having ordinary skill in the art to select first voltage level be between 2.7 volts to 3.0 volts, and the second voltage level be 0.5 volts as system design preference serving the same function as to identify which external device is connected to the mobile terminal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quochien B Vuong/
Primary Examiner, Art Unit 2618